

**ENERGY CONSERVATION APPLICATION FORM FOR
LOW-RISE RESIDENTIAL NEW CONSTRUCTION and ADDITIONS
780 CMR Appendix J**

Applicant Name: _____
Applicant Address: _____

Site Address: _____
City/Town: _____
Use Group: _____
Date of Application: _____
Applicant Signature: _____

Applicant Phone: _____

Compliance Path (check one):

☐ **Prescriptive Package (Limited to 1- or 2-family wood frame buildings heated with fossil fuels only)**

Package (A through KK from Table J5.2.1b): _____ Heating Degree Days (HDD₆₅) from Table J5.2.1a: _____

(For items d. through i., fill in all values that apply from Table J5.2.1b:)

a. Gross Wall Area _____ sq.ft	f. Wall R-value R- _____
b. Glazing Area ¹ _____ sq.ft.	g. Floor R-value R- _____
c. Glazing % (100 x b ÷ a) _____ %	h. Basement wall R- _____
d. Glazing U-value U- _____	i. Slab Perimeter R- _____
e. Ceiling R-value R- _____	j. Heating AFUE _____

☐ **Component Performance: "Manual Trade-Off" (Limited to wood or metal framed buildings only)**

Climate Zone (from Figure J6.2.2) ☐ Zone 12 ☐ Zone 13 ☐ Zone 14

Attach *Trade-Off Worksheet* from Appendix J, [and *HVAC Trade-Off Worksheet*, if applicable]

☐ **MAScheck Software**

Attach *Compliance Report* and *Inspection Checklist* printouts

☐ **Home Energy Rating System Evaluation**

Attach Home Energy Rating Certificate (HERS rating score must be 83 or higher)

☐ **Systems Analysis** OR ☐ **Renewable Energy Sources**

Attach Mass Registered Architect or Engineer Analysis

ALTERNATIVE FOR ADDITIONS ONLY:

a. Gross Wall + Ceiling Area _____ sq.ft. b. Glazing Area¹ _____ sq.ft. c. Glazing % (100 x b ÷ a) _____ %

☐ **ADDITION with Glazing % (c.) up to 40% may use 780 CMR Table J1.1.2.3.1 below:**

MAXIMUM U-value	MINIMUM R-Values				
Fenestration ²	Ceiling ³	Wall	Floor	Basement Wall	Slab Perimeter, Depth
0.39 ³	R-37	R-13	R-19	R-10	R-10, 4 ft

1 Glazing Area may be either Rough Opening or Unit dimensions.

2 Based on NFRC listing. Applies either to every unit, or to area-weighted average of all units.

3 R-30 ceiling insulation may be used in place of R-37 if the insulation achieves the full R-value over the entire ceiling area (i.e.- not compressed over exterior walls, and including any access openings.)

☐ **"SUNROOM" addition (greater than 40% glazing-to-wall and ceiling gross area)**

Attach "Consumer Information Form" from 780 CMR Appendix B.

Official's Name: _____

Official's Signature: _____

Application Approved ☐ Denied ☐

Date of Approval/Denial: _____

Reason(s) for Denial: (provide additional details as needed on back side)



CONSUMER INFORMATION FORM - "SUNROOMS"

Massachusetts State Building Code (780 CMR, Appendix J, Section J1.1.2.3.1)

The Massachusetts State Building Code (780 CMR) includes provisions to ensure that houses and house additions meet energy efficiency standards. This supplemental CONSUMER INFORMATION FORM is to be filed as part of the building permit application when a builder/contractor or homeowner, constructing/installing a house addition with very large percentage of glass to opaque wall, seeks to utilize a special energy conservation exemption option for "sunroom" additions to an existing house (780 CMR, Appendix J, Section J1.1.2.3.1). This FORM is not intended to prevent a homeowner from selecting a "sunroom" of any size, configuration, orientation, form of construction or percent glazing, but rather is only intended to assist homeowners in becoming aware of some of the important energy conservation and year-round comfort considerations involved in selecting and utilizing a "sunroom" addition.

The connection of "sunroom" structures to residential buildings may create comfort and energy consumption issues due to uncontrolled solar gain or uncontrolled radiation cooling of the main house. In the selection and construction/installation of "sunrooms", included below is a non-required, open-ended list of product and design considerations that a homeowner may wish to consider before actually constructing/installing a "sunroom". It is recommended that consumers carefully review these options with their designer, builder, or contractor, in order to minimize potential energy consumption and/or house discomfort issues. In addition, the qualifications and reputation of the company or individuals to be hired are important considerations.

PRODUCT AND DESIGN CONSIDERATIONS RELATED TO "SUNROOMS"

- **Solar Orientation and Natural Shading**
- **Type of Glazing**
 - **Insulating value**
 - **Solar heat gain**
 - **Frame materials**
 - **Glazing to frame sealing and gasketing materials/ seal durability and/or weather tightness of the sunroom**
- **Adequate ventilation - Operable windows and fans**
- **Applied Shading Systems**
- **Insulation level in floors, walls, and ceilings**
- **Possible Sunroom isolation from the main house via a wall and/or door or slider**
- **Heating and Cooling Methods: Efficiency, Zoning and Controls**

Homeowner Acknowledgment

The Massachusetts State Building Code, Section J1.1.2.3.1, requires that the actual property owner (not the owner's agent or representative) acknowledge receipt of this CONSUMER INFORMATION FORM prior to issuance of a Building Permit for a project that includes "sunroom" additions to an existing residential building. In accordance with this requirement, the undersigned hereby acknowledges that she/he has read the information in this document concerning sunroom comfort and energy conservation.

Signature of Actual Building Owner

Date

Print Name

Address of Permitted Project

Owner Address (if different than project location)

Owner's telephone number